53-1001274-02
28 July 2009

Fixed Rack Mount Kit

Installation Procedure

Supporting Brocade 200E, 300, 4100, 4900, 5000, 5100, 5300, 7500 series, 7600, 7800, 8000, AP7420 and Encryption Switch

BROCADE

53-1001274-02

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Brocade Communications Systems, Incorporated

Corporate and Latin American Headquarters
Brocade Communications Systems, Inc.
1745 Technology Drive
San Jose, CA 95110
Tel: 1-408-333-8000
Fax: 1-408-333-8101
E-mail: info@brocade.com

Asia-Pacific Headquarters
Brocade Communications Systems China HK, Ltd.
No. 1 Guanghua Road
Chao Yang District
Units 2718 and 2818
Beijing 100020, China
Tel: +8610 6588 8888
Fax: +8610 6588 9999
E-mail: china-info@brocade.com

European Headquarters
Brocade Communications Switzerland Sàrl
Centre Swissair
Tour B - 4ème étage
29, Route de l'Aéroport
Case Postale 105
CH-1215 Genève 15
Switzerland
Tel: +41 22 799 5640
Fax: +41 22 799 5641
E-mail: emea-info@brocade.com

Asia-Pacific Headquarters
Brocade Communications Systems Co., Ltd. (Shenzhen WFOE)
Citic Plaza
No. 233 Tian He Road North
Unit 1308 – 13th Floor
Guangzhou, China
Tel: +8620 3891 2000
Fax: +8620 3891 2111
E-mail: china-info@brocade.com

Document History

The following table lists all published versions of the *Fixed Rack Mount Kit Installation Procedure*.

Title	Publication number	Summary of changes	Date
Fixed Rack Mount Kit Installation Procedure	53-0000244-03	Added 3250 and 3850 support and new illustrations and format.	December 2003
Fixed Rack Mount Kit Installation Procedure	53-0000244-04	Updated to include 3800 and 4100; minor editorial changes.	July 2004
Fixed Rack Mount Kit Installation Procedure	53-0000244-05	Updated to include 200E; minor editorial changes.	January 2005

Title	Publication number	Summary of changes	Date
Fixed Rack Mount Kit Installation Procedure	53-0000244-06	Minor technical corrections.	June 2005
Fixed Rack Mount Kit Installation Procedure	53-1000244-07	Updated with minor hardware changes; minor editorial changes.	October 2005
Fixed Rack Mount Kit Installation Procedure	53-1000244-08	Added support for 4900 and 7500.	February 2006
Fixed Rack Mount Kit Installation Procedure	53-0000244-09	Added support for the 5000 switch.	December 2006
Fixed Rack Mount Kit Installation Procedure	53-0000244-10	Rebranded to current standards and changed title and text of manual to include “7500 series.”	January 2008
Fixed Rack Mount Kit Installation Procedure	53-0000244-11	Added support for the Brocade 300, 5100, and 5300 switches	March 2008
Fixed Rack Mount Kit Installation Procedure	53-0000244-12	Added support for the Brocade Encryption Switch	August 2008
Fixed Rack Mount Kit Installation Procedure	53-1001274-01	Added support for the Brocade 8000 Switch	March 2009
Fixed Rack Mount Kit Installation Procedure	53-1001274-02	Added support for the Brocade 7800 Switch	July 2009

Contents

This document provides instructions to install a 1U, 1.5U, or 2U switch (or SAN Router) in a 19-in. (48.3 cm) EIA cabinet using the Fixed Rack Mount Kit. The document is organized as follows.

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Introduction

The supported switches are listed in Table 1. The switch can be installed so that the port side is either flush with the front rails or recessed from the front rails. A recessed position allows a more gradual bend in the fiber optic cables connected to the switch.

TABLE 1 Supported switches

Switch Height	Switch Model
1U	Brocade 200E
	Brocade 300
	Brocade 4100
	Brocade 5000
	Brocade 5100
	Brocade 7500 series
	Brocade 7600
	Brocade 7800
	Brocade 8000
2U	Brocade 4900
	Brocade 5300
	Brocade AP7420
	Brocade Encryption Switch

Installation requirements

Allow 15 to 30 minutes to complete this procedure. Note the following requirements to ensure correct installation and operation:

- Provide space in a 19-in. (48.3 cm) EIA cabinet, as required for the switch type, with a minimum distance of 28.25 in. (71.76 cm) and a maximum distance of 29.88 in. (75.90 cm) between the front and back rails.
- Verify that the additional weight of the switch does not exceed the cabinet's weight limits.
- Ensure that an electrical branch circuit with the following characteristics is available:
  - Required voltage and frequency as indicated in the hardware reference manual. (200-230 VAC is always preferred)
  - Protection by a circuit breaker in accordance with local electrical codes.
  - Supply circuit, line fusing, and wire size that conform to the electrical rating on the switch nameplate.
  - Grounded outlet compatible with the power cord and installed by a licensed electrician.
- Ensure that all equipment installed in the cabinet is grounded through a reliable branch circuit connection. Do not rely on a secondary connection to a branch circuit, such as a power strip.
- Ensure that the cabinet is mechanically secured to ensure stability.
- Ensure that the air temperature at the fan inlet is less than 104^{o} Fahrenheit (40^{o} Celsius) during switch operation.
- Ensure that the airflow available at the air vents meets the minimum requirements for the switch.

ATTENTION
Install the switch with the fan side facing the air-intake aisle. The chassis air intake is on the fan side and exhaust is on the port side.

Tool requirements and parts list

The following items are required to install a switch using the fixed rack mount kit:

- Clamps or other means of temporarily supporting the switch in the cabinet.
- Phillips #2 screwdriver with torque capability.
- 1/4 in. slotted-blade screwdriver with torque capability.

ATTENTION
Use the screws specified for use with the switch. Longer screws can damage the switch.

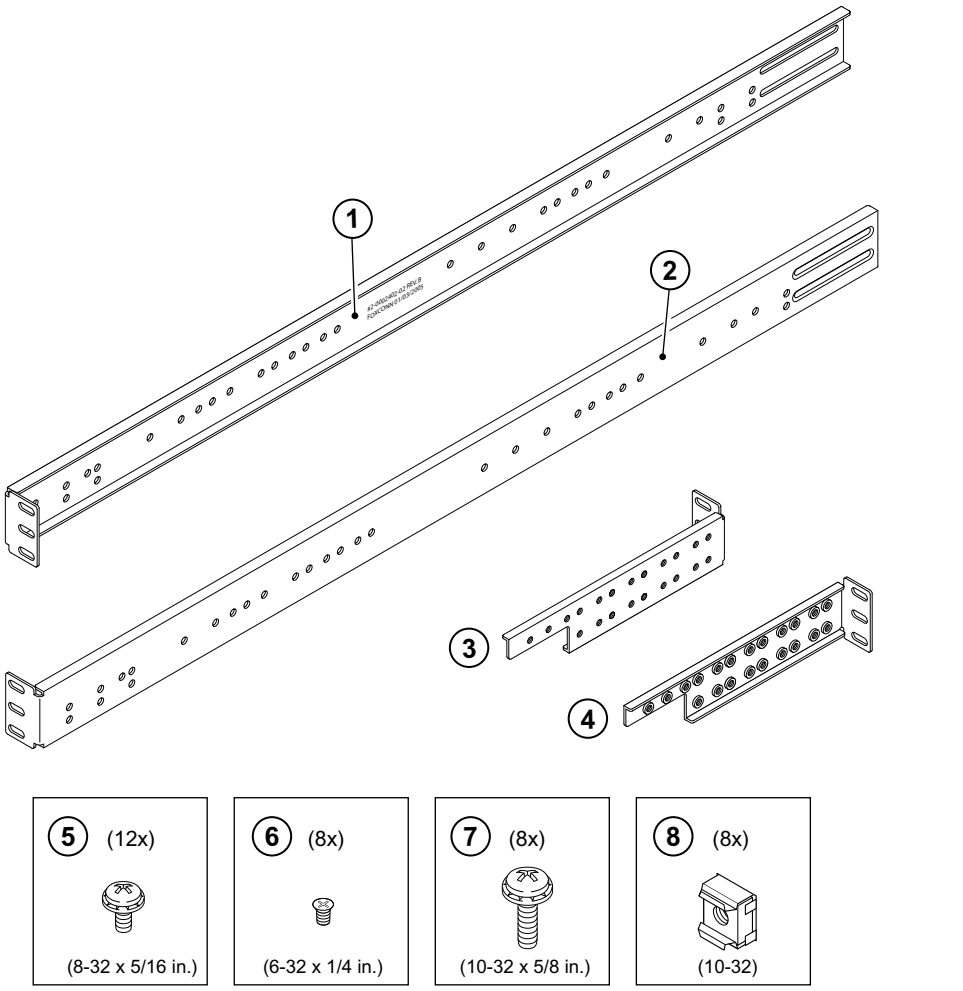
Ensure that the items listed in Table 2 and illustrated in Figure 1 are included in the kit.

TABLE 2 Parts list

Item	Description	Quantity
1	Bracket, front right	1
2	Bracket, front left	1
3	Bracket, rear right	1
4	Bracket, rear left	1

TABLE 2 Parts list

Item	Description	Quantity
5	Screw, 8-32 x 5/16 in., panhead Phillips (torque to 15 in.-lbs, 17 cm-kgs)	12
6	Screw, 6-32 x 1/4 in., flathead Phillips (torque to 9 in.-lbs, 10 cm-kgs)	8
7	Screw, 10-32 x 5/8 in., panhead Phillips (torque to 25 in.-lbs, 29 cm-kgs)	8
8	Retainer nut, 10-32	8



1 Bracket, front right
2 Bracket, front left
3 Bracket, rear left
4 Bracket, rear right
5 Screw, 8-32 x 5/16 in., panhead Phillips
6 Screw, 6-32 x 1/4 in., flathead Phillips
7 Screw, 10-32 x 5/8 in., panhead Phillips
8 Retainer nut, 10-32

FIGURE 1 **Items in Fixed Rack Mount Kit**

Installation procedure

ATTENTION
The switch must be turned off and disconnected from the fabric during this procedure.

NOTE
Although this document describes how to install a 1U, 1.5U, and 2U switch, the illustrations show a 1U switch as a typical configuration.

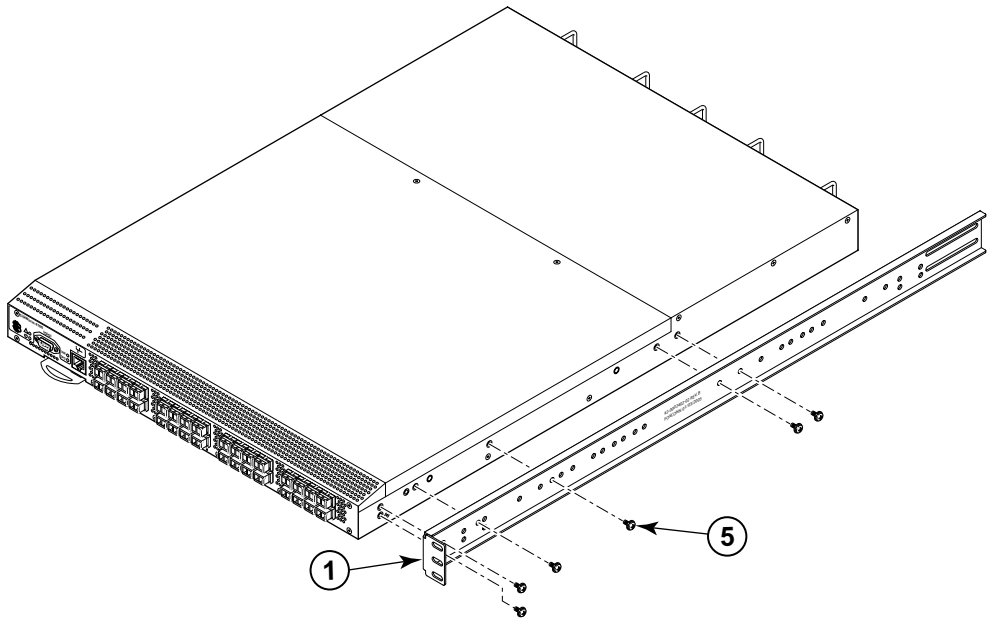
Complete these tasks to install the switch in a cabinet:

- "Attaching front brackets"
- "Installing the switch in the cabinet"
- "Attaching rear brackets to front brackets"
- "Attaching rear brackets to cabinet rails"

Attaching front brackets

Complete the following steps to attach the front brackets to the switch.

1. Position the right front bracket (Item 1) with the flat side against the right side of the switch (Figure 2).
2. Insert two 8-32 x 5/16 in. screws (Item 5) into one of the pairs of vertically aligned holes in the bracket and then into the pair of holes on the side of the switch. To install the switch in a recessed position in the cabinet, use the bracket holes that are set back from the end of the bracket.
3. Insert each 8-32 x 5/16 in. screw (Item 5) through the holes in the bracket and into the corresponding hole in the switch.
4. Tighten all 8-32 x 5/16 in. screws to a torque of 15 in.-lbs (17 cm-kgs).
5. Repeat step 1 through step 5 to attach the left front bracket (Item 2) to the left side of the switch.



1 Bracket, front right

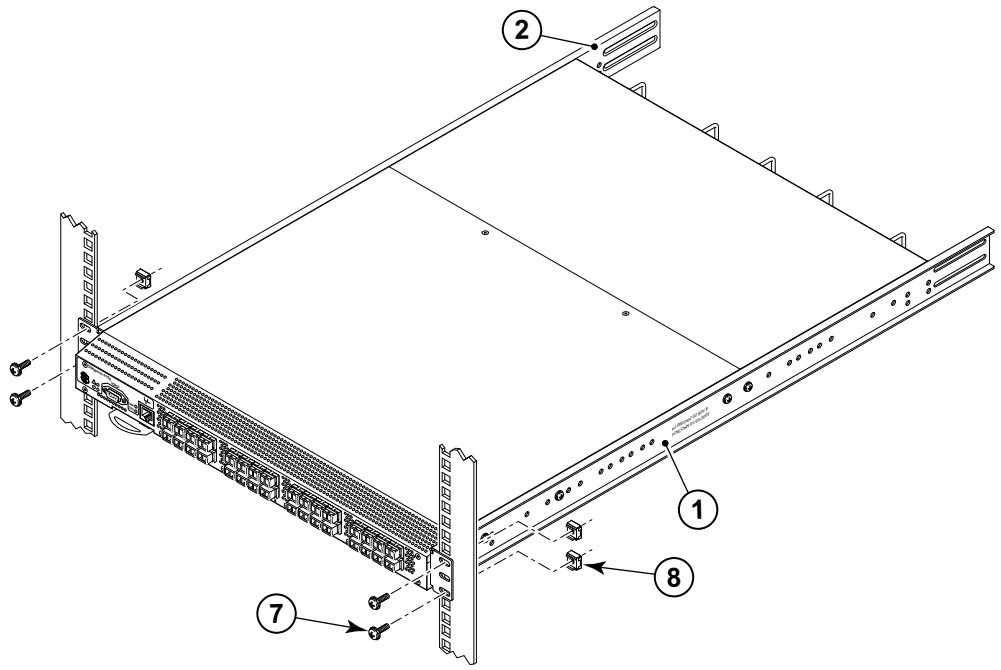
5 Screw, 8-32 x 5/16 in., panhead Phillips

FIGURE 2 Position the front bracket

Installing the switch in the cabinet

Complete the following steps to install the switch in the cabinet.

1. Position the switch in the cabinet (Figure 3), providing temporary support under the switch until the rail kit is secured to the cabinet.
2. Attach the right front bracket (Item 1) to the right front rack rail using two 10-32 x 5/8 in. screws (Item 7) and two retainer nuts (Item 8).
3. Repeat step 2 to attach the left front bracket (Item 2) to the left front rack rail.
4. Tighten all 10-32 x 5/8 in. screws (Item 7) to a torque of 25 in.-lbs (29 cm-kgs



1	Bracket, front right	7	Screw, 10-32 x 5/8 in., panhead Phillips
2	Bracket, front left	8	Retainer nut, 10-32

NOTE
The figure above is shown with a recessed mounting configuration on the left and a flush mounting configuration on the right. You can select either mounting option.

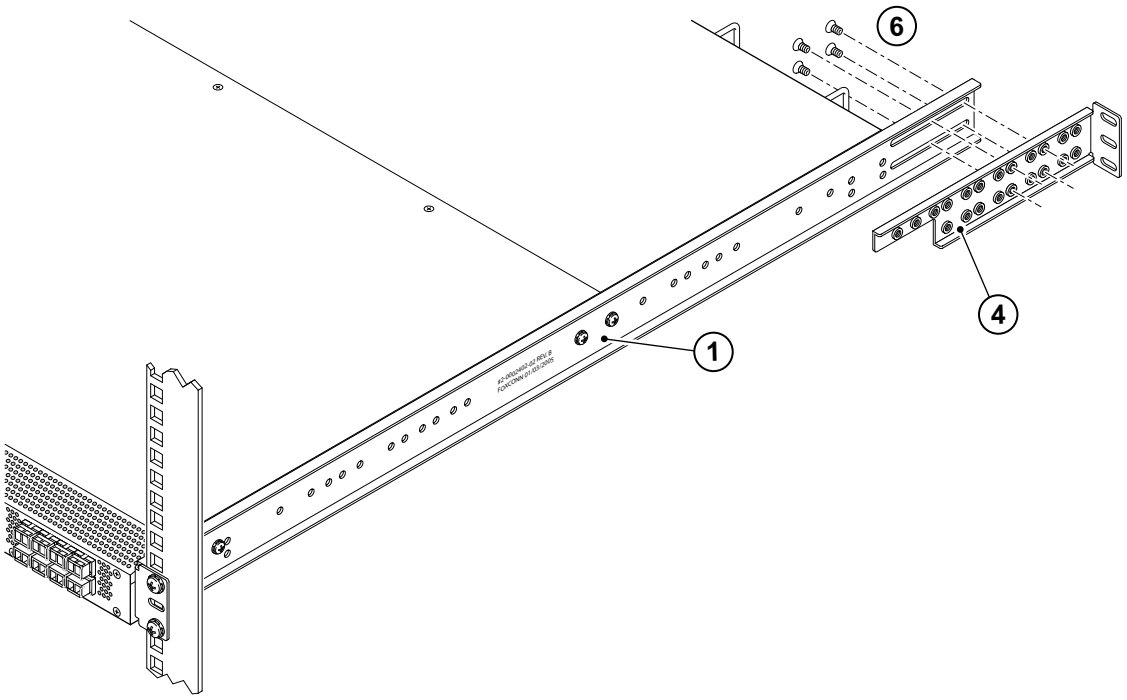
FIGURE 3 Position the switch in the cabinet

Attaching rear brackets to front brackets

Complete the following steps to attach the rear brackets to the front brackets.

1. Position the right rear bracket (Item 4) inside the right front bracket (Item 1) (Figure 4).
2. Attach the brackets using four 6-32 x 1/4 in. screws (Item 6).
3. Adjust the brackets to cabinet depth and tighten the Item 6 screws to a torque of 9 in.-lbs (10 cm-kgs).

4. Repeat step 1 through step 3 to attach the left rear bracket (Item 3) to the left front bracket (Item 2).



1 Bracket, front right
4 Bracket, rear right
6 Screw, 6-32 x 1/4 in., flathead Phillips

FIGURE 4 Position the rear and front brackets

Attaching rear brackets to cabinet rails

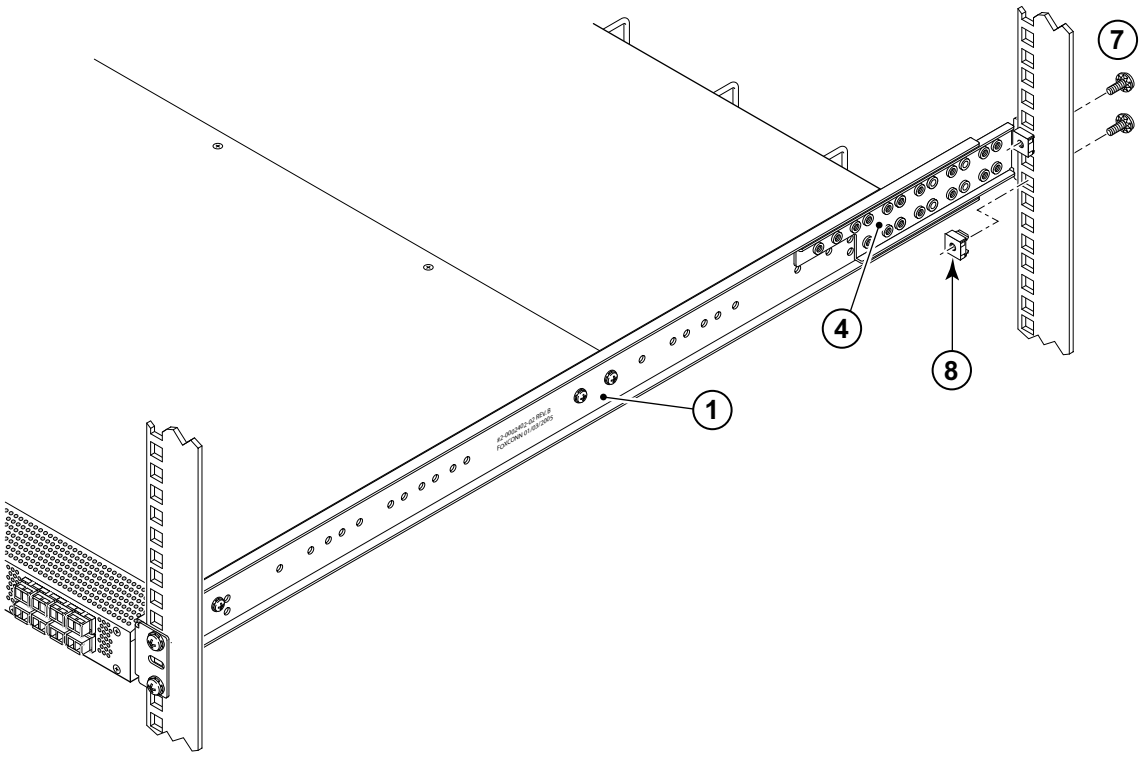
Complete the following steps to attach the rear brackets to the cabinet rails.

1. Attach the right rear bracket (Item 4) to the right rear cabinet rail using two 10-32 x 5/8 in. screws (Item 7) and two retainer nuts (Item 8) (Figure 5).
2. Repeat step 1 to attach the left rear bracket (Item 3) to the left rear cabinet rail.
3. Tighten the 10-32 x 5/8 in. screws (Item 7) to a torque of 25 in.-lbs (29 cm-kgs).

ATTENTION
Connect the power cords to a grounded outlet only. Ensure that any power cord is routed so that it is not exposed to stress. Leave a minimum service loop of 6 in. in the power cord(s) at the connection to switch. This allows enough freedom of movement to plug and unplug the power cord(s).

4. Provide power to the switch by connecting the power cord(s) to the power connectors on the switch and a power outlet. Some switches require you to flip a power switch to be powered on.

NOTE
Do not connect the switch to the network until the IP address is correctly set. Refer to the appropriate hardware reference manual for information on setting the IP address for the switch.



1	Bracket, front right	7	Screw, 10-32 x 5/8 in., panhead Phillips
4	Bracket, rear right	8	Retainer nut, 10-32

FIGURE 5 **Attach the rear bracket to the cabinet rail**